WHAT IS CLAIMED IS:

1. A white light emitting diode comprising:

a conductive substrate with a light transmitting property having a first surface divided into first and second areas and a second surface being opposed to the first surface;

a first emitting unit including a first clad layer, a first active area, and a second clad layer, sequentially formed at the first area of the conductive substrate;

a second emitting unit including a third clad layer, a second active area emitting light with a wavelength to be combined with light emitted from the first active area into white light, and a fourth clad layer, sequentially formed at the second area of the conductive substrate; and

first, second and third electrodes, said first electrode connected to the second surface of the conductive substrate, said second electrode connected to the second clad layer, and said third electrode connected to the fourth clad layer.

2. The white light emitting diode as set forth in claim 1,

wherein the conductive substrate is made of a material which can transmit at least blue light.

3. The white light emitting diode as set forth in claim 2,

wherein the conductive substrate is a GaN substrate.

4. The white light emitting diode as set forth in claim 1,

wherein the first and third clad layers are made of a first conductive-type semiconductor material, and the second and fourth clad layers are made of a second conductive-type semiconductor material.

5. The white light emitting diode as set forth in claim 4, wherein:

the first active area of the first emitting unit includes a green active layer formed on the first clad layer, an undoped clad layer formed on the green active layer, and a blue active layer formed on the undoped clad layer; and

the second active area of the second emitting unit includes an active layer for emitting red light.

6. The white light emitting diode as set forth in claim 5, wherein:

the first clad layer is made of a first conductive-type GaN compound semiconductor material;

the green active layer is a GaN/InGaN layer with a multi-quantum well structure;

the undoped clad layer is made of a GaN compound semiconductor material;

the blue active layer is a GaN/InGaN layer with a multi-quantum well structure; and

the second clad layer is made of a second conductive-type AlGaN compound semiconductor material.

7. The white light emitting diode as set forth in claim 1 or 6,

wherein the second emitting unit is made of one semiconductor material selected from the group consisting of AlGaInP, GaP, GaAs, and InN.

8. The white light emitting diode as set forth in claim 1,

wherein the second and third electrodes are integrally formed.

9. The white light emitting diode as set forth in claim 1, further comprising an insulating layer interposed between the first emitting unit and the second emitting unit.

10. The white light emitting diode as set forth in claim 9,

wherein the insulating layer is formed on the entire surface of the first emitting unit except for an area at which the second electrode is formed.

11. A white light emitting diode comprising:

a conductive substrate having a first surface divided into first and second areas and a second surface being opposed to the first surface;

a first emitting unit including a first clad layer, a first active area, and a second clad layer, sequentially formed at the first area of the conductive substrate;

a second emitting unit, including a third clad layer, a second active area emitting light with a wavelength to be combined with light emitted from the first active area into white light, and a fourth clad layer, connected to the second area of the conductive substrate by a metal adhesive layer; and

a first electrode connected to the second surface of the conductive substrate, and a second electrode connected to the second clad layer.

12. The white light emitting diode as set forth in claim

11, wherein:

the first active area of the first emitting unit includes an active layer for emitting red light; and

the second active area of the second emitting unit includes a green active layer formed on the third clad layer, an undoped clad layer formed on the green active layer, and a blue active layer formed on the undoped clad layer.

13. The white light emitting diode as set forth in claim 12, wherein:

the third clad layer is made of a first conductive-type GaN compound semiconductor material;

the green active layer is a GaN/InGaN layer with a multi-quantum well structure;

the undoped clad layer is made of a GaN compound semiconductor material;

the blue active layer is a GaN/InGaN layer with a multi-quantum well structure; and

the fourth clad layer is made of a second conductive-type AlGaN compound semiconductor material.

14. The white light emitting diode as set forth in claim 11 or 13,

wherein the first emitting unit is made of one

semiconductor material selected from the group consisting of AlGaInP, GaP, GaAs, and InN.

15. The white light emitting diode as set forth in claim 11,

wherein the conductive substrate is a first conductive-type substrate.

16. The white light emitting diode as set forth in claim 15,

wherein the conductive substrate is a first conductive-type GaAs substrate.

17. The white light emitting diode as set forth in claim 15,

wherein the first and third clad layers are made of a first conductive-type semiconductor material, and the second and fourth clad layers are made of a second conductive-type semiconductor material.

18. The white light emitting diode as set forth in claim 15,

wherein the second emitting unit further includes a second conductive-type substrate formed on the fourth clad

layer, and a third electrode formed on the second conductive-type substrate.

19. The white light emitting diode as set forth in claim 11,

wherein the conductive substrate is a second conductive-type GaAs substrate provided with a first conductive-type impurity area, and the third clad layer of the second emitting unit is connected to the first conductive-type impurity area.

20. The white light emitting diode as set forth in claim 19,

wherein the first and fourth clad layers are made of a second conductive-type semiconductor material, and the second and third clad layers are made of a first conductive-type semiconductor material.

21. The white light emitting diode as set forth in claim 19, wherein:

the second emitting unit includes an exposed surface of the fourth clad layer, being opposed to the first conductive-type substrate, obtained by partially removing the third clad layer and the second active area; and

the exposed surface of the fourth clad layer is

connected to the first conductive-type substrate by a metal adhesive layer.

22. The white light emitting diode as set forth in claim 19,

wherein the second emitting unit further includes a GaN substrate formed on the fourth clad layer.

23. The white light emitting diode as set forth in claim 11, further comprising an insulating layer interposed between the first emitting unit and the second emitting unit.

24. The white light emitting diode as set forth in claim 23,

wherein the insulating layer is formed on the entire surface of the first emitting unit except for an area at which the second electrode is formed.

25. A method for manufacturing a white light emitting diode, comprising the steps of:

(a) preparing a conductive substrate with a light transmitting property having a first surface divided into first and second areas, and a second surface being opposed to the first surface;

(b) forming a first emitting unit by sequentially stacking a first clad layer, a first active area, and a second clad layer at the first area of the conductive substrate;

(c) forming a second emitting unit by sequentially stacking a third clad layer, a second active area emitting light with a wavelength to be combined with light emitted from the first active area into white light, and a fourth clad layer at the second area of the conductive substrate; and

(d) forming a first electrode on the second surface of the conductive substrate, a second electrode on the second clad layer, and a third electrode on the fourth clad layer.

26. The method as set forth in claim 25, wherein:

the conductive substrate is a GaN substrate; and

the first and third clad layers are made of a first conductive-type semiconductor material, and the second and fourth clad layers are made of a second conductive-type semiconductor material.

27. The method as set forth in claim 25,

wherein the second and third electrodes are integrally formed.

28. The method as set forth in claim 25,

wherein the step (b) includes the sub-steps of:

(b-1) sequentially stacking the first clad layer, the first active area, and the second clad layer on the first surface of the conductive substrate;

(b-2) removing the obtained stack structure from the second area of the first surface of the conductive substrate; and

(b-3) forming an insulating layer on a side surface of the remaining stack structure, at least adjacent to the second area.

29. The method as set forth in claim 28,

wherein the insulating layer is formed on the entire surface of the first emitting unit except for an area at which the second electrode is formed.

30. The method as set forth in claim 25,

wherein the first emitting unit is made of one semiconductor material selected from the group consisting of AlGaInP, GaP, GaAs, and InN.

31. The method as set forth in claim 25, wherein:

the first active area of the first emitting unit includes a blue active layer formed on the first clad layer,

an undoped clad layer formed on the blue active layer, and a green active layer formed on the undoped clad layer; and

the second active area of the second emitting unit includes an active layer for emitting red light.

32. The method as set forth in claim 31, wherein:

the first clad layer is made of a first conductive-type GaN compound semiconductor material;

the green active layer is a GaN/InGaN layer with a multi-quantum well structure;

the undoped clad layer is made of a GaN compound semiconductor material;

the blue active layer is a GaN/InGaN layer with a multi-quantum well structure; and

the second clad layer is made of a second conductive-type AlGaN compound semiconductor material.

33. A method for manufacturing a white light emitting diode, comprising the steps of:

(a) preparing a conductive substrate having a first surface divided into first and second areas and a second surface being opposed to the first surface;

(b) forming a first emitting unit by sequentially stacking a first clad layer, a first active area, and a second

clad layer at the first area of the conductive substrate;

(c) connecting a second emitting unit obtained by sequentially stacking a third clad layer, a second active area emitting light with a wavelength to be combined with light emitted from the first active area into white light and a fourth clad layer, to the second area of the conductive substrate by a metal adhesive layer; and

(d) forming a first electrode on the second surface of the conductive substrate, and a second electrode on the second clad layer.

34. The method as set forth in claim 33,

wherein the conductive substrate is a first conductive-type GaAs substrate.

35. The method as set forth in claim 34,

wherein the first and third clad layers are made of a first conductive-type semiconductor material, and the second and fourth clad layers are made of a second conductive-type semiconductor material.

36. The method as set forth in claim 34,

wherein the second emitting unit further includes a second conductive-type GaN substrate formed on the fourth clad

layer, and a third electrode formed on the second conductive-type GaN substrate.

37. The method as set forth in claim 33, wherein:

the conductive substrate is a second conductive-type GaAs substrate; and

the step of forming a first conductive-type impurity area in the second conductive-type GaAs substrate is further achieved prior to the step (c).

38. The method as set forth in claim 37,

wherein the first and fourth clad layers are made of a second conductive-type semiconductor material, and the second and third clad layers are made of a first conductive-type semiconductor material.

39. The method as set forth in claim 37,

wherein the step (c) includes the sub-steps of:

(c-1) connecting the third clad layer of the second emitting unit to the first conductive-type impurity area by a metal adhesive layer; and

(c-2) connecting the fourth clad layer of the second emitting unit to the second conductive-type substrate by another metal adhesive layer.

40. The method as set forth in claim 39, wherein:

the second emitting unit includes an exposed surface of the fourth clad layer, being opposed to the first conductive-type substrate, obtained by partially removing the third clad layer and the second active area; and

the step (c) includes the step of connecting the exposed surface of the fourth clad layer of the second emitting unit to the second conductive-type substrate by the metal adhesive layer.

41. The method as set forth in claim 37,

wherein the second emitting unit further includes a GaN substrate formed on the fourth clad layer.

42. The method as set forth in claim 33,

wherein the step (b) includes the sub-steps of:

(b-1) sequentially stacking the first clad layer, the first active area, and the second clad layer on the first surface of the conductive substrate;

(b-2) removing the obtained stack structure from the second area of the first surface of the conductive substrate; and

(b-3) forming an insulating layer on a side surface of

the remaining stack structure, at least adjacent to the second area.

43. The method as set forth in claim 42,

wherein the insulating layer is formed on the entire surface of the first emitting unit except for an area at which the second electrode is formed.

44. The method as set forth in claim 33,

wherein the first emitting unit is made of one semiconductor material selected from the group consisting of AlGaInP, GaP, GaAs, and InN.

45. The method as set forth in claim 33, wherein:

the first active area of the first emitting unit includes an active layer for emitting red light; and

the second active area of the second emitting unit includes a green active layer formed on the third clad layer, an undoped clad layer formed on the green active layer, and a blue active layer formed on the undoped clad layer.

46. The method as set forth in claim 45, wherein:

the third clad layer is made of a first conductive-type GaN compound semiconductor material;

the blue active layer is a GaN/InGaN layer with a multi-quantum well structure;

the undoped clad layer is made of a GaN compound semiconductor material;

the green active layer is a GaN/InGaN layer with a multi-quantum well structure; and

the fourth clad layer is made of a second conductive-type AlGaN compound semiconductor material.